



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Marine Adhesive Sealant 5200 - White
MANUFACTURER: 3M
DIVISION: Marine & Specialty Vehicle
ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

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Product Use:
Specific Use: Marine Adhesive Sealant

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
URETHANE PREPOLYMER	68611-34-7	40 - 70
TALC	14807-96-6	15 - 40
TITANIUM DIOXIDE	13463-67-7	5 - 10
ZINC OXIDE	1314-13-2	1 - 5
DIETHYLENE GLYCOL MONOETHYL ETHER ACETATE	112-15-2	<2
SYNTHETIC AMORPHOUS SILICA, FUMED, CRYSTALLINE FREE	112945-52-5	<2
ALKYL ISOCYANATE SILANE	85702-90-5	<2
TOLUENE DIISOCYANATE	26471-62-5	<1
ACETONE	67-64-1	<0.5
HEPTANE	142-82-5	<0.5
N-BUTYL ACETATE	123-86-4	<0.2
XYLENE	1330-20-7	<0.2
HEXAMETHYLENE DIISOCYANATE	822-06-0	<0.05

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste
Odor, Color, Grade: White color

General Physical Form: Solid

Immediate health, physical, and environmental hazards: May cause allergic skin reaction. May cause allergic respiratory reaction. Contains a chemical or chemicals which can cause cancer. TOLUENE DIISOCYANATE (26471-62-5): Persons previously sensitized to TDI or other isocyanate may react to subsequent exposures of concentrations well below the TLV. These symptoms which can include chest tightness, wheezing, cough, shortness of breath, or asthma attack, could be immediate or delayed for several hours.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

During grinding, scraping, sanding:

Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:

Prolonged or repeated exposure may cause:

Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Inhalation:

During grinding, scraping, sanding:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure may cause:

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Ingestion:

Ingestion may cause:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

Target Organ Effects:

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
TOLUENE DIISOCYANATE	26471-62-5	Group 2B	International Agency for Research on Cancer
TOLUENE DIISOCYANATE	26471-62-5	Anticipated human carcinogen	National Toxicology Program Carcinogens

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water for at least 15 minutes. If signs/symptoms develop, get medical attention. Dispose of contaminated clothing and shoes.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

5.1 FLAMMABLE PROPERTIES

Autoignition temperature
Flash Point
Flammable Limits - LEL
Flammable Limits - UEL

No Data Available
Not Applicable
No Data Available
No Data Available

5.2 EXTINGUISHING MEDIA

DO NOT USE WATER

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Non-flammable: ordinary combustible material.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

Accidental Release Measures: Observe precautions from other sections. Call 3M- HELPS line (1-800-364-3577) for more information on handling and managing the spill. Ventilate the area with fresh air. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Collect as much of the spilled material as possible. Clean up residue. Dispose of collected

material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7 HAZARD AND STORAGE

7.1 HANDLING

Do not breathe vapors. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep out of the reach of children. Avoid eye contact with dust or airborne particles.

7.2 STORAGE

Store in a cool place. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed.

SECTION 8 EXPOSURE CONTROL, PERSONAL PROTECTIVE EQUIPMENT

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Do not use in a confined area or areas with little or no air movement. Provide ventilation adequate to control dust concentrations below recommended exposure limits and/or control dust. Use in a well-ventilated area. If exhaust ventilation is not available, use appropriate respiratory protection. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control dust, fume, or airborne particles. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Indirect Vented Goggles.

8.2.2 Skin Protection

Avoid skin contact. Do not use heat to aid in the removal of 5200 Marine Sealant. The application of heat may generate levels of Toluene diisocyanate (TDI) in excess of the TLV.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber, Nitrile Rubber.

8.2.3 Respiratory Protection

Do not breathe vapors.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and P95 particulate prefilters, Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and N95 particulate prefilters, Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and P100 particulate prefilters, Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P95 particulate prefilters, Half facepiece or fullface air-purifying respirator with organic vapor cartridges and N95 particulate prefilters, Half facepiece or fullface air-purifying respirator with organic vapor cartridges and P100 particulate prefilters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
ACETONE	ACGIH	TWA	500 ppm	Table A4
ACETONE	ACGIH	STEL	750 ppm	Table A4
ACETONE	OSHA	TWA, Vacated	750 ppm	
ACETONE	OSHA	TWA	1000 ppm	Table Z-1
ACETONE	OSHA	STEL, Vacated	1000 ppm	
CADMIUM DUST	OSHA	TWA, as dust	0.2 mg/m3	Table Z-2
CADMIUM DUST	OSHA	CEIL, as dust	0.6 mg/m3	Table Z-2
FREE ISOCYANATES	3M	TWA	0.005 ppm	
FREE ISOCYANATES	3M	STEL	0.02 ppm	
HEPTANE	ACGIH	TWA	400 ppm	
HEPTANE	ACGIH	STEL	500 ppm	
HEPTANE	OSHA	TWA, Vacated	400 ppm	
HEPTANE	OSHA	TWA	500 ppm	Table Z-1
HEPTANE	OSHA	STEL, Vacated	500 ppm	
HEXAMETHYLENE DIISOCYANATE	ACGIH	TWA	0.005 ppm	
N-BUTYL ACETATE	ACGIH	TWA	150 ppm	
N-BUTYL ACETATE	ACGIH	STEL	200 ppm	
N-BUTYL ACETATE	OSHA	TWA	150 ppm	Table Z-1A
N-BUTYL ACETATE	OSHA	STEL	200 ppm	Table Z-1A
SILICATES (LESS THAN 1% CRYSTALLINE SILICA) TALC CONTAINING ASBESTOS	OSHA	TWA, as total dust	0.1 fiber/cc	Standard Appendix
SILICATES (LESS THAN 1% CRYSTALLINE SILICA) TALC CONTAINING ASBESTOS	OSHA	STEL, as total dust	1 fiber/cc	Standard Appendix
TALC	ACGIH	TWA, respirable	2 mg/m3	Table A4
TALC	CMRG	TWA, as respirable dust	0.5 mg/m3	
TALC	OSHA	TWA, respirable	2 mg/m3	Table Z-1A
TIN, ORGANIC COMPOUNDS	ACGIH	TWA, as Sn	0.1 mg/m3	Skin Notation*, Table A4
TIN, ORGANIC COMPOUNDS	ACGIH	STEL, as Sn	0.2 mg/m3	Skin Notation*
TIN, ORGANIC COMPOUNDS	OSHA	TWA, as Sn	0.1 mg/m3	Skin Notation*, Table Z-1A
TITANIUM DIOXIDE	ACGIH	TWA	10 mg/m3	Table A4
TITANIUM DIOXIDE	CMRG	TWA, as respirable dust	5 mg/m3	
TITANIUM DIOXIDE	OSHA	TWA, Vacated, as dust	10 mg/m3	
TITANIUM DIOXIDE	OSHA	TWA, as total dust	15 mg/m3	Table Z-1
XYLENE	ACGIH	TWA	100 ppm	Table A4
XYLENE	ACGIH	STEL	150 ppm	Table A4
XYLENE	OSHA	TWA	100 ppm	Table Z-1A
XYLENE	OSHA	STEL	150 ppm	Table Z-1A
ZINC OXIDE	ACGIH	TWA, respirable	2 mg/m3	
ZINC OXIDE	ACGIH	STEL	10 mg/m3	
ZINC OXIDE	OSHA	TWA, as fume	5 mg/m3	Table Z-1
ZINC OXIDE	OSHA	TWA, respirable	5 mg/m3	Table Z-1
ZINC OXIDE	OSHA	STEL, Vacated, as fume	10 mg/m3	
ZINC OXIDE	OSHA	TWA, Vacated, as dust	10 mg/m3	
ZINC OXIDE	OSHA	TWA, as total dust	15 mg/m3	Table Z-1

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local

regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	White color
General Physical Form:	Solid
Autoignition temperature	No Data Available
Flash Point	Not Applicable
Flammable Limits - LEL	No Data Available
Flammable Limits - UEL	No Data Available
Boiling point	No Data Available
Vapor Density	No Data Available
Vapor Pressure	No Data Available
Specific Gravity	1.36 [Ref Std: WATER=1]
pH	No Data Available
Melting point	No Data Available
Solubility In Water	No Data Available
Evaporation rate	No Data Available
Volatile Organic Compounds	0.4 lb/gal
Percent volatile	No Data Available
VOC Less H2O & Exempt Solvents	41 g/l
Viscosity	100000 - 500000 centipoise

SECTION 4: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Amines; Alcohols; Water **Additional Information:** Reaction with water, alcohols, and amines is not hazardous if container can vent to atmosphere to prevent pressure buildup.

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Isocyanates	Not Specified
Carbon monoxide	Not Specified
Carbon dioxide	Not Specified
Hydrogen Cyanide	Not Specified
Irritant Vapors or Gases	Not Specified

Oxides of Nitrogen
Phosgene

Not Specified
Not Specified

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOTOXICOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: WASTE DISPOSAL AND CONTAINER HANDLING

Waste Disposal Method: Cure (harden, set, or react) the product according to product instructions.

Dispose of completely cured (or polymerized) wastes in a sanitary landfill.

As a disposal alternative, incinerate uncured product in an industrial or commercial incinerator in the presence of a combustible material.

Dispose of empty product containers in a sanitary landfill.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORTATION INFORMATION

ID Number(s):

60-4100-0946-2, 60-4100-0947-0, 60-4100-0949-6, 60-4100-0967-8, 60-9800-4298-4, 60-9800-4299-2, 60-9800-4300-8, 60-9800-4301-6, 60-9801-0556-7, 60-9801-0843-9, FS-9100-3614-4, LB-T000-0006-0

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - Yes Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
ZINC OXIDE (ZINC COMPOUNDS)	1314-13-2	1 - 5
DIETHYLENE GLYCOL MONOETHYL ETHER ACETATE (GLYCOL ETHERS)	112-15-2	<2
TOLUENE DIISOCYANATE	26471-62-5	<1

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
N-BUTYL ACETATE	123-86-4	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable
HEPTANE	142-82-5	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable
ACETONE	67-64-1	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
TOLUENE DIISOCYANATE	26471-62-5	**Carcinogen

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NFPA Hazard Classification

Health: 3 Flammability: 1 Reactivity: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes: Not Applicable

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